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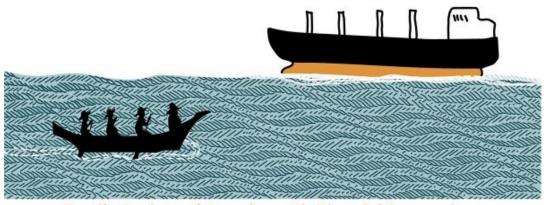
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The Social Fabric: Deep Local to Pan Global



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Mind's Eye and Embodied Weaving:

Simultaneous Contrasts of Hue in Isluga Textiles, Northern Chile

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Abstract

This article examines the use of hue in textiles woven during the twentieth century in Isluga, a bilingual Aymara/Spanish-speaking community of herders of llamas, alpacas and sheep in the highlands of northern Chile. It pays tribute to the weaving skills of Natividad Castro Challapa and other weavers of her generation, born early in the twentieth century. Aniline dyes were already known to them but, in the course of their lives, they witnessed increasing amounts of industrially manufactured, pre-dyed acrylic yarns arriving in the community. The article explores how weavers incorporated these brightly hued yarns in their textiles to form accents of colour alongside undyed yarns spun from alpaca and llama fibre. Taking into account the environmental context of ambient lightness and darkness, it addresses the forms of contrast the weavers used, based on principles of extension, saturation, complementarity and simultaneity. This study of Natividad Castro Challapa's weaving career provides a rare opportunity to demonstrate how local concepts concerning the use of hues have undergone historical change with the arrival of global resources in an ethnographic context that otherwise provides the researcher with little documentary evidence.

In presenting the written version of my paper given during the 2018 Textile Society of America meeting in Vancouver, first of all I wish to thank the Musqueam, Squamish and Tsleil-Waututh First Nations owners for their blessing in welcoming me to their land. My theme explores colours in textiles and how light falling on the folds of cloth has the capacity to enhance or diminish them. More specifically, I wish to explore the powerful effects that can occur when hues interact with each other. Without light, the human eye cannot see such differences and the philosopher Francis Bacon remarked "All Colours will agree in the Darke." In mythical Haida time before there was light, Raven, the transformer, stole the sun, where it had been kept in a box, and let it out to illuminate the world. The box belonged to a father who, living in the dark, wondered if the beauty of his daughter was as the fronds of hemlock seen against the rising sun or ugly but homely, like a sea slug. There is, of course, a paradox. In the absence of light, how did he know that, allegedly, the plants were beautiful and sea slugs repulsive in appearance?

The symposium organisers invited participants to explore the interaction of what they called "the deep local" and global contacts. They defined the deep local as "knowledge, beliefs,

¹ Francis Bacon, "Of unity in religion," in *Bacon's essays and colours of good and evil* (London: Macmillan and Co, 1892 [1597]), 8-13.

² Bill Reid and Robert Bringhurst, *The rayen steals the light* (Vancouver: Douglas and McIntyre, 1984).

resources, and practices that are profoundly anchored in particular communities and places".³ In accepting this invitation, I offer a perspective on how weavers in Isluga, a highland community of northern Chile, bordering with the Plurinational State of Bolivia, articulate textile designs by setting up visual contrasts, bearing in mind that dyes and pigments are substances deeply implicated in cross-cultural contact situations.⁴ The context of my contribution is that light is an inconstant phenomenon yet vital in the life cycle of carbon-based organisms. For spinners and weavers in Isluga, working in the media of fleece – of llamas, alpacas and sheep, as well as of dyestuffs – lightness and darkness provide particular environments affecting the appearance of their loom products.

Bacon's observation that, in the absence of light, visual distinctions cannot be observed has an antithesis: in the light, colours can disagree. His use of the word "colour" in a metaphorical sense ("the colours of good and evil") underlines its longstanding conceptual importance in the English language. People in Isluga are bilingual and they speak an Aymaraized form of Spanish in addition to Aymara itself, a language which does not possess a term for "colour". 5 Pointing out that speakers of a considerable number of languages in the world do not talk about colour because their languages do not possess relevant terms, Anna Wierzbicka discusses how Walpiri people in Australia instead talk about visual phenomena in reference to qualities such as conspicuousness, patterning or brilliance/shine. The Aymara language, then, is not unusual in having to borrow a term for "colour" from Spanish, and for using the term "blood" (wila) for what, in English and Spanish, has a specialized term for "red" or "rojo" as a specific hue. Nevertheless, red has particularly potent associations. People speak of a former mythical world age of redness, dimly illuminated by the light of the moon, which came to an end with the arrival of the sun. The redness – described as the colour of a mass of boiling red-pigmented quinua seeds – refracted through the white light of daylight, produced a full range of hues in all their distinctiveness.⁷

Self-evidently, I am making use of English to write this article. Here I tend to favour the term "hue" over that of "colour". This distinction does not translate easily into Aymara. "Hue" derives from the Old English $h\bar{t}w$, $h\bar{e}ow$ ("form," "appearance," or "aspect") and is related to the Swedish hy ("skin," "complexion"). According to the Oxford Dictionary, only in the mid nineteenth century did it acquire the meaning it now has referring to a specific colour quality, as in the redness or greenness of, say, a thread.⁸ One of the reasons for choosing the term is

³ "Theme," *The Social Fabric: Deep Local to Pan Global*. Textile Society of America's 16th Biennial Symposium, Vancouver, BC, Canada, 19-23 September 2018. https://textilesocietyofamerica.org/tsa_symposium/symposium-2018/ (accessed 24 January 2019).

⁴ Gabriela Siracusano, *El poder de los colores. De lo material a lo simbólico en las prácticas culturales andinas, siglos XVI-XVIII* (Buenos Aires: Fondo de Cultura Económica, 2005); Elena Phipps, "Textile colors and colorants in the Andes," in Gerhard Wolf, Joseph Connors and Louis Alexander Waldman (eds), *Colors between two worlds. The Florentine Codex of Bernardino de Sahagún* (Florence, 2011), 256-280.

⁵ Under the dominant influence of Spanish, Aymara dictionaries sometimes list the term *samiri* or variants on its root form as an equivalent for "colour;" Manuel de Lucca, *Diccionario práctico aymara-castellano, castellano-aymara* (La Paz/Cochabamba: Los Amigos del Libro, 1987) at p.146. Literally, *samiri* means someone or something who/that blows (*soplar* in Spanish). It can conjure up mistiness or dissipate it; see Penelope Dransart, "The sounds and tastes of colours: hue and saturation in Isluga textiles," *Nuevo Mundo Mundos Nuevos*, Colloques, 07 juillet 2016. http://nuevomundo.revues.org/69188

⁶ Anna Wierzbicka, "Why there are no 'colour universals' in language and thought," *Journal of the Royal Anthropological Institute* 14(2) (2008), 407-425.

⁷ Penelope Dransart, "Coloured knowledges: vision and the dissemination of knowledge in Isluga, northern Chile," in Henry Stobart and Rosaleen Howard (eds), *Knowledge and learning in the Andes* (Liverpool: Liverpool University Press, 2002a), 56-78, 61-62 and 74.

⁸ Oxford Dictionary https://en.oxforddictionaries.com/definition/hue (accessed 24 January 2019).

that its etymology draws attention to chromatic appearances, which is a characteristic that Isluga weavers exploit in their textiles.

In the context of Wierzbicka's discussion, it can be noted that Isluga weavers organize a textile visually in stripes, using specific forms of dissimilarity, expressed as contrasts between light and dark, ocmbined with contrasts of hue. 10 It is intriguing that Wierzbicka links Walpiri disinterest in what English speakers might call "colour talk" to an "absence of any 'colour practices' such as dyeing." Aymara speakers, in contrast, are inheritors of millennia-long traditions in exploiting the colours of camelid fleece as well as dvestuffs. Their vocabulary is rich in terms for specific colours of llama and alpaca fleece. ¹² Hence Isluga spinners and weavers are deeply committed to "colour practices." Yet if they talk about these practices and the choices they make to create patterns, it is often in relation to sounds and tastes, rather than referring directly to colour as a generic concept.¹³

Natividad Castro Challapa's career in weaving

This article honours the work of Natividad Castro Challapa and other weavers of her generation. In particular, it focuses on how they set up visual contrasts through the use of hue in their textiles. She was born in the first decade of the twentieth century and passed away in 1989. I met her first in 1986, when I started to do fieldwork in Isluga, a highland community in the Comuna de Colchane in northern Chile. Isluga territory is divided into two moieties, called "upper" (Araxsaya) and "lower" or "inner" (Manqhasaya). During much of the twentieth century, young people tended to choose their marriage partners from within their own moiety. Mama Nati's mother was from Caraguano and, after the death of her first husband, by the 1980s she was living with her second husband in Enquelga. Both these communities are in Arax Saya; they are located either side of a large area of moist pastures where herders watch over their llamas, alpacas, and sheep. The preference for endogamous marriages within one's moiety of origin does not mean that people remained within its territorial limits. Mama Nati made frequent trips to the valleys west of Isluga with a caravan of llamas to trade with people there. She also wove textiles for them in exchange for agricultural products, such as peaches, which cannot be cultivated at high altitude.

In Isluga, girls first learn to spin and, after the age of about eight years, they start to weave. In a conversation held in 1987, Mama Nati told me that she began her weaving career by making belts, a type called *churu chilinitu*, and medium-sized bags known as *wayaqa* in

⁹ See Verónica Cereceda, "Semiología de los textiles andinos: las talegas de Isluga," Chungara: Revista de Antropología Chilena 42(1) (2010 [1978]), 181-198.

¹⁰ See Dransart, "Coloured knowledges" and Dransart, "Sounds and tastes of colours." ¹¹ Wierzbicka, "Why there are no colour universals," 412.

Dransart, "Coloured knowledges," 71-72.
 Dransart, "Coloured knowledges," 66-67; Dransart, "Sounds and tastes of colours."





Figure 1a (left). Carrying shawl or lliklla woven by Natividad Castro Challapa in her youth, with the assistance of her mother. Photograph © P. Dransart

Figure 1b (right). Detail of the lliklla in Figure 1a showing the border known as t'irja traversed by one patterned stripe known as churitu and narrow plain weave stripes. Photograph © P. Dransart

Aymara and *talega* in Spanish. The carrying shawl or *lliklla* in Figure 1a is an example of a weaving she made with her mother's assistance while she was still a teenager. She described its design as being like those woven in Chiapa, a community in the Quebrada de Aroma, west of Isluga, which characteristically had an expansive central area of warp-faced plain weave in grey, white, brown, or beige. ¹⁴ Isluga weavers refer to this central area as the *cuerpo* or *puraka* of the textile. ¹⁵ A strongly hued *t'irja* or broad stripe of colour runs along each outer edge.

Mama Nati said that she spun fine llama fleece for the yarn that forms the ground of the *t'irja* and her mother dyed it using a cactus plant. Years later, her daughter Doña Felisa Castro Castro told me that the dye was a mixture of aniline dye and *tunilla*, a cactus with a deep red fruit also known as *ayrampu* (Figure 2). The plant, in its Linnaean nomenclature, *Tunilla soehrensii*, grows at altitudes between 2,000 and 3,800 metres above sea level in the far south of Peru, Bolivia, northern Chile and north-west Argentina. ¹⁶ Locally, people encounter it while herding and they have used it as a colourant in foods and textiles, and also for

¹⁴ Chiapa is at an altitude where people irrigate terraces for growing crops, in contrast to Isluga where only potatoes and quinua can be grown in rain-fed cultivation plots. Particularly appreciated in Isluga are different maize varieties from Chiapa, which are produced in a dazzling array of colours; see Gabriel Martínez, "Para una etnografía del riego en Chiapa: medidas y calendario," *Chungara: Revista de Antropología Chilena* 18 (1987), 163-179.

¹⁵ In Spanish *cuerpo* means "body", but *puraka* is literally the Aymara term for "stomach". Because a *lliklla* is made from two loom lengths sewn together, this central feature is divided by the seam. Cereceda, "Semiología de los textiles andinos," 198, n13, also reported that the word "*purajja*" was applied to the lateral parts of a woven bag. Another term that weavers apply to a large expanse of plain colour is *pampa*, an area of flat land.

¹⁶ R. Kiesling, P. Demaio, F. Cáceres, L. Faundez, H.E. Walter, & P. Saldivia, "*Tunilla soehrensii*," *The IUCN Red List of Threatened Species* (2017), e.T151825A121569172, http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151825A121569172.en (accessed 28 January 2019).



Figure 2. An example of ayrampu cactus and fruit (Tunilla soehrensii) growing near Tilcara, north-west Argentina.

Photograph © P. Dransart

medicinal purposes.¹⁷ Writing in the seventeenth century, Father Bernabé Cobo commented, in the light of humoral theory inherited from Galen:

Lleva unas *Tunillas* tamañas como aceitunas, muy coloradas, que sirven de fina tinta. Son todas las *Tunas* frías y húmedas, y también las hojas tienen las mismas calidades, y son salivosas, cuyo zumo mitiga el calor de las fiebres ardientes.

Echa de sí esta planta una goma blanca que templa el calor de los riñones y es provechosa para otras curas. ¹⁸

¹⁷ It has been frequently reported that many plants used for dyeing also have medicinal applications. See, for example, Nobuko Shibayama, Elena Phipps, and Lucy Commoner, "Identifying natural dyes to understand a tapestry's origin, Metropolitan Museum of Art," https://www.metmuseum.org/about-the-met/conservation-and-scientific-research/projects/identifying-natural-dyes (accessed 28 January 2019).

¹⁸ "Some *Tunillas* bear [fruits] the size of olives, very red, which serve as fine dye. All *Tunas* are cold and moist, and their leaves have the same qualities. And they secrete saliva, the juice of which mitigates the heat of burning fevers. This plant emits a white gum that tempers the heat of the kidneys and is beneficial for other cures;" Bernabé Cobo, *Historia del Nuevo Mundo*, D. Marcos Jiménez de la Espada (ed.) (Seville: Sociedad de Bibliófilos Andaluces, 1890 [1653]), Vol I, p. 444 (my translation). Cobo reported that the term *tuna* originated in the Caribbean island of Hispaniola.





Figure 3 (left). Kimsa chinu in a wistalla (coca pouch) spun and woven by the author under the tuition of Soria Mamani Challapa. Note that the k'isa are asymmetrical – on the left the green k'isa is graduated from light to dark to meet the dark side of the pattern and on the right the pink k'isa is graduated from dark to light to meet the light side of the pattern.

Photograph © P. Dransart

Figure 4 (right). P\u00e4 chinu in a bag woven by the author under the tuition of Soria Mamani Challapa. In this case the k'isa is mirrored, darkest on the inside and lightest at the outer edges. Photograph @ P. Dransart

In the *lliklla*, the dye produced a resonant colour, which serves as a foil for the narrower stripes, with a violet colour standing at the point of conjunction between the *t'irja* and the main body of the textile. Mama Nati emphasized that only one of these narrow stripes in the *t'irja* should incorporate a pattern and, in this case, the pattern is called *churitu* or "little boxes" (Figure 1b).

Mama Nati listed the forms of patterning she knew in her youth as *kimsa chinu* (three paired warp bouts), *pä chinu* (two paired warp bouts) and *churitu*. These all produce very narrow pattern stripes (Figures 3 and 4). She explained that *saltas* (or *saldas* as the term is often pronounced in Isluga) were new, adding that they came from Sitani and Pisiga in Manqhasaya, although in origin they were Bolivian. *Salda* is not a term she would have used in her youth. ¹⁹ By the 1980s, however, it had gained currency and she described the *churitu* she wove in her *lliklla* as a *salda chiapeña* or "a *salta* from Chiapa". *Kimsa chinu*, she said, was easy but she claimed not to know how to weave the new *saltas*.

Churitu was used for both *lliklla* and *wistalla*, a little woven pouch without a carrying strap men and women use for keeping coca leaves. The *wistalla* Mama Nati wove in Figure 5 has a central pattern stripe in red and yellow, flanked on each side by three narrow plain weave

¹⁹ The word *salta* seems to arise from the process of weaving because manually selected warp threads are lifted to form the pattern. Denise Y. Arnold, *El textil y la documentación del tributo en los Andes: los significados del tejido en contextos tributaries* (La Paz: ILCA, 2016), 203-204, derives the term from the verb *saltaña*, an Aymara borrowing from Spanish (*saltar*, "to jump" or "skip" – the raised warp thread skips two or more weft passes). She wonders if the pronunciation of *salta* as *salda* is related to the Spanish *saldar* ("to pay a debt").



Figure 5 Coca pouch (wistalla) woven by Natividad Castro Challapa with the pattern churitu flanked by k'isa. Photograph © P. Dransart

stripes. This central axis contrasts with the plain ground of beige or *qhusi*, spun from camelid fibre. Some of the yarns in the narrow and pattern stripes are spun from sheep's wool, which takes a dye more easily than camelid fleece.

The design of the textiles in Figure 1 and Figure 5 depends on different types of contrast, especially of extension and of saturation. A contrast of extension is produced by bringing together narrow areas of brightly coloured hues with larger extensions of undyed colour, whether the bright hues form the central axis of the design, or are placed along the outer edges. And both textiles exploit a contrast between saturation and desaturation, in the saturated hues of the dyed threads and the desaturated hues of the undyed areas. The concept of saturation has to do with the purity and intensity of a hue through not being diluted with white.²⁰ In pairing pink with green and red with green, the *lliklla* also displays complementary contrast of hue.²¹ This is a point to which I will return later.

²⁰ Dransart, "Sounds and tastes of colours."

²¹ From an outsider perspective, one might say that the weavers are juxtaposing yet another type of contrast, that between warm and cool colours. I included this as a possibility in considering the forms of contrasts observable in Isluga textiles (Dransart, "Coloured knowledges," 59). I added a cautionary note by drawing attention to John Gage's observation that evidence in European documentary source for the classification of colours as warm and cool is lacking prior to the eighteenth century. This caution is instructive because it suggests that attributing "warmth" or "coolness" to colours in not a universal practice; see John Gage, *Colour and culture. Practice and meaning from antiquity to abstraction* (London: Thames and Hudson, 1993), 8 and Dransart, "Coloured knowledges," 64 n11. In Isluga, people classify certain foods as cold and others as hot,



Figure 6. Loom warped by Isabel Challapa Castro for one half of a carrying shawl (lliklla) with ch'ulla k'isa and k'istapita flanking the pattern seis chinu on the t'irja. Now in the Pitt Rivers museum, University of Oxford. Photograph © P. Dransart

Weavers belonging to the generation of Mama Nati's daughters readily adopted the new *saldas*. Doña Isabel Challapa Castro, whom I commissioned to start weaving a loom as an example of work in progress for the collections of the Pitt Rivers Museum (Figure 6), told me that a señorita from Pisiga Centro in Manqhasaya arrived with a *lliklla* that included the pattern *seis chinu* (six paired warp bouts). She taught both Isabel and Mama Nati's daughter Felisa to weave the design. Another woman in Enquelga already knew how to weave *cinco chinu* (five paired warp bouts).

These new designs were also accompanied by modifications in the narrow stripes that flanked them. Such stripes now consisted of little graduated steps of one hue. When she accepted the commission in 1987 for the Pitt Rivers Museum, Isabel Challapa Castro decided to present a *lliklla* characteristic of her younger days.²² One of the two loom lengths that would be necessary to make a *lliklla* is warped on the loom; it has a dark brown body separated from the *t'irja* by a blue stripe. Its organization of the colour contrasts of extension and of saturation is characteristic of *llikllas* woven in the 1960s and 1970s, using threads available in the 1980s. There is still only one pattern band, but the narrow stripes have widened in a series of steps to demonstrate a transition from pale tones until they reach the full intensity of the hue itself.

just as Bernabe Cobo considered *tunas* to be cold. Since publishing "Coloured knowledges," I have been unable to find evidence that Isluga people classify colours as "warm" or "cool."

²² Pitt Rivers Museum, University of Oxford, 1987.15.15.

The animating efficacy of strong hues

During my fieldwork, Isluga weavers have not talked to me about k'isa is such terms. They emphasize instead the importance of contrast, insisting that the k'isa must "sound out" (sonar) against the ground of the t'irja. I therefore see k'isa as a microtonal rising, like the vertical columns of industrially dyed yarns sold in the once a fortnight Bolivian market on the border with Chile that the dealers have already pre-packaged in plastic bags to attract Isluga women to make a purchase.²⁵ Isluga textiles have displayed a far greater commitment to using contrasts of extension between narrow stripes of saturated hues and broad expansions of undyed colours than weavers living in the lakeside region of Titicaca. It is essential that narrow stripes of strong hues really do resonate against the rest of the textile.

Perhaps the idea of using different shades in a progressive heightening of a hue until it reaches saturation can be traced ultimately from the dazzling tapestry-woven *sarape* ponchos of Aguas Calientes, Mexico, which date from at least the eighteenth century onwards. Leaving one end of the skein undyed, the yarn was dyed in successive dippings to produce an ombré effect. ²⁶ In the nineteenth century, industrially synthesized aniline dyes replaced the hand dyeing. Denise Arnold and Elvira Espejo assert that in the 1960s acrylic yarns manufactured in Mexico began to be imported into Bolivia, leading to an influx of pallid

²³ Verónica Cereceda, "Aproximaciones a una estética andina: de la belleza al *tinku*," in Javier Medina (ed.), *Tres reflexiones sobre el pensamiento andino* (La Paz, Hisbol, 1987), 133-231 at p. 184. If this conjunction of concepts tempts one to recall the English phrase, "sweetness and light", the Oxford English Dictionary draws attention to a different moral context than one that is relevant to the Andes because it offers "social or political harmony" and "good-natured benevolence" as definitions of the phrase. It says that the satirist Jonathan Swift borrowed the phrase in an aesthetic and moral context from Matthew Arnold's *Culture and Anarchy* (1869) https://en.oxforddictionaries.com/definition/sweetness and light (accessed 29 January 2019).

²⁴ Denise Y. Arnold and Elvira Espejo, "The intrusive *k'isa*: Bolivian struggles over colour patterns and their social implications," *World Art*, 2(2), (2012), 251-278.

²⁵ Dransart, "Sounds and tastes of colours," figure 5. On the concept of microtonal rising, see Jonathan D. Hill, "Myth, spirit naming, and the art of microtonal rising: childbirth rituals of the Arawakan Wakuénai", *Latin American Music Review / Revista de Música Latinoamericana* 6(1) (1985), 1-30.

²⁶ Laura E. Start, *The MacDougall Collection of Textiles of Indian Textiles from Guatemala and Mexico*, T.K. Penniman and B.M. Blackwood (eds) (Oxford: Pitt Rivers Museum, 1980 [1948], 83-85.



Figure 7. Carrying shawl (liklla) woven by Luisa Castro Castro, perhaps in the 1960s. In this case, the t'irja is woven from grey camelid fibre yarns. The pattern is seis chinu. The weaver used the lliklla during Carnival, when flour is thrown at people; there are still traces of it on the plain weave area. Photograph © P. Dransart

colours produced by reusing dye baths at the end of a run of production.²⁷ Isluga weavers, however, used the new colours in strengths more reminiscent of Aguas Calientes textiles, but within confined stripes in the textile design.

By the 1960s, industrially spun and dyed yarns were also making their presence known in Isluga. The yarns were the result of chemists' experiments in the mid nineteenth century to make acrylic textile fibres from polymers. Isluga people were presumably unaware of the etymology of "acrylic", a neologism derived from the Latin *acri*- for "pungent" combined with + *ol* (eum) or "oil." They call it by the Spanish term *madeja*. At first weavers seem to have accepted acrylic yarns for occasional use. Their own yarn faded rapidly when they spun sheep's wool and dyed it using aniline dyes purchased by the ounce in the Bolivian market. They liked the stronger colour permanence the acrylic yarns offered. Figure 7 is a *lliklla* woven by one of Mama Nati's daughters, Luisa Castro Castro. It displays *ch'ulla k'isa*, (one

²⁷ Arnold and Espejo, "The intrusive *k'isa*," 263, but note that Figure 1 in their article shows a *k'isa* in blanket woven in the region of Lake Titicaca dated to the 1940s.

²⁸ https://en.oxforddictionaries.com/definition/acrylic (accessed 29 January 2019).





Figure 8a (top). Wayaqa (bag) woven by Natividad Castro Challapa, woven from undyed yarns of camelid fibre and two narrow stripes, dyed green and red, flanking the central grey stripe. Photograph @P. Dransart

Figure 8b (bottom). Detail of the bag in Figure 8a showing the complementary green and red stripes, which create an optical effect on the central grey stripe through simultaneous contrast. Photograph © P. Dransart

half of a *k'isa*), with the hues rising from pale to saturated, as well as *k'istapista*, in which one *k'isa* mirrors another, strongest at its outer edges and meeting at the lightest point. Luisa achieved a particularly intense contrast to articulate the junction between the *t'irja* and the body of the *lliklla*.

When I asked, people were unsure when acrylic yarns first arrived in Isluga. There was a particular episode, however, when they arrived in abundance. Mama Nati remembered a large *pilpintu* or butterfly, which settled on the doorway of her kitchen, "with wings like a five thousand peso note." It had eyes like pearls, "it frightened me, ugly (*feo*)." She sought help from a neighbour, who tried to catch it with his hat, but it flew off towards the pasture grounds. "*Feo*," she repeated and added, "it was announcing money." She then explained that Verónica [Cereceda] arrived in Enquelga, bringing aniline dyes and *madeja*, lots of it, in exchange for weaving. There was so much, that people had to reorganise their homes. While one neighbour stored the yarns and dyes, Mama Nati and her husband let the anthropologists Verónica Cereceda and Gabriel Martínez use one of their houses and they had to celebrate the *floreo* of their llamas in her brother-in-law's house. 30

Isluga people associate the brilliance of strong hues with minerals mined from the insides of the earth, from an inner realm of fertility and fabulous wealth. Conversely, in a dissipation of luck, association with such potent substances can induce wasting diseases and the lack of success.³¹ The exposed rocks of the hills surrounding Arax Saya are charged with strong hues, and ought to be the source of much mineral wealth. Isluga people comment, wistfully, that the promise of such hues has not been realized because nothing more than sulphur has been discovered in them. But when Verónica arrived in Enquelga bearing quantities of improbably bright *madeja*, the moment seemed to be charged with potency for generating prosperity.

Mama Nati belonged to a generation of people who knew that strong hues were possessed of ambiguous powers. Her command of Spanish was better than that of her monolingual Aymara-speaking contemporaries, but she still would only speak about specific hues with me if I asked when no one else was around. It is with a sense of loss that I realize that during the early days of my fieldwork from 1986 onwards, my initial attempts to conduct conversations with older women were constrained by my conceptual underpinnings particular to European languages. But I am grateful for the conversations I was able to have.

Mama Nati introduced aniline-dyed yarns into her weavings in small accents of strong hue to inject an animating efficacy. In a remarkable bag used for storing foodstuffs (wayaqa), she

²⁹ "con alas en billete de cinco mil", in a conversation on 6 December 1987.

³⁰ The *floreo* or *wayñu* is an elaborate ceremony of the rainy season, which families hold between January and before the start of Lent, involving a ritual dressing of their herd animals to ensure the fertility of the livestock; Penelope Dransart, *Earth, water, fleece and fabric. An ethnography and archaeology of Andean camelid herding* (London: Routledge, 2002b).

³¹ As described by Olivia Harris, "The earth and the state: the sources and meanings of money in Northern Potosí, Bolivia," in Jonathan Parry and Maurice Bloch (eds), *Money and the morality of exchange* (Cambridge: Cambridge University Press, 1989), at pp 251-252, in a discussion of how Laymi people in Bolivia draw parallels between minerals growing underground and potato tubers in the earth.



Figure 9. Wayaqa (bag) woven by Natividad Castro Challapa with orange, green and pink k'isas inserted between the brown, white and black stripes in the central area of the design. Photograph © P. Dransart

inserted two slender stripes of complementary colours next to each other to flank the central grey stripe of the design (Figure 8a and b). By placing the green immediately next to the grey, and red alongside the green, these hues intensify the larger grey stripe in the middle, making it come alive.³² In another *wayaqa*, she took note of the developments that were changing the appearance of *k'isa*, and incorporated hues in bright stripes, each one consisting of three graduated steps (Figure 9). But, she told me sadly, the anthropologist did not want to buy it for the collection she was making in order to study Isluga bags.³³

Doña Teodora Flores, one of Mama Nati's contemporaries, also knew how to animate expanses of grey fleece through the elegant use of *k'isa*. In the *ch'uspa* or coca bag in Figure 10, the *k'isa* consist of narrow violet, indigo, green and pale green stripes. *Madeja* cost money to buy, whereas yarns spun from camelid fibre or sheep's wool were part of a herding way of life. The reluctance, however, to use imported yarns was not just about a lack of pesos circulating in the local economy. In the 1980s and early 1990s, the daughters of the older generation of weavers became emboldened to expand *k'isa* and patterning in their textiles

The optical effect of two juxtaposed hues means that they seem to be more different than they actually are. In this case, the red and green are already very different and have a tendency to counteract each other. It is the grey which appears to be tinted by the juxtaposition with the saturated red and green. This principle was investigated by the chemist Michel-Eugène Chevreul when he was director of the dye department of the Gobelins Manufactory in Paris; Georges Roque, "Chevreul's colour theory and its consequences for artists," paper presented to the Colour Group (GB) meeting *Colour and textiles: From past to future* in June 2010, at p. 7, http://www.colour.org.uk/publications.php (accessed 29 January 2019).

The study of the bags was published, without Mama Nati's *wayaqa*, in Cereceda, "Semiología de los textiles andinos."





Figure 10 (left). Ch'uspa (coca bag for ceremonial occasions) woven by Teodora Flores with mirrored k'isa and a central stripe of k'uthu. The tubular edging round the sides of the bag is called larpa. Photograph © P. Dransart

Figure 11 (right). Ch'uspa (coca bag for ceremonial occasions) woven from madeja yarns by Silvia Challapa Castro. The pattern at the sides of the visual field is cinco chinu and the bag is edged with a larpa. Photograph © P. Dransart

and, in turn, their daughters expanded them further still (Figure 11). Older persons frequently described their weavings as *feo/fea*, which was the adjective Mama Nati had applied to the big butterfly. They recognised the technical skill of the young weavers, but the extensive use of bright hues disturbed them. Mama Nati and her contemporaries knew of the dangers of exposing such brilliance to the full light of day. There were certain activities one just did not expose to the light when the sun was at its zenith; preparing the lime catalyst to pop in one's *wistalla* or *ch'uspa* along with the coca leaves for masticating was one such task.

The bright and microtonal hues associated with the daytime events of the *floreo* had to be matched by the singing of sad songs which, as the quality of light faded into dusk and beyond into night, changed under the darkness to music of happier tones.³⁴ Carnival, too, was another ritually sanctioned event for which people dressed in quantities of hues not normally seen during the light of day.

In the 1990s, Enquelga acquired a generator. After nightfall, up until then, people had placed a wick in a tin of paraffin to obtain a flickering light. When electric lights were installed, it hung as a single bare bulb in people's houses. Street lamps were provided outside, too. By this time, Mama Nati had passed away. From visits to towns and cities she would have known about artificial lighting and its flattening, glaring character. Her life in Enquelga, however, had been illuminated by the movements of the sun and moon. She belonged to a generation of people who acquired an acute sensitivity to the contrasts of light and dark, and how the fall of light reveals hues in their glory. Mama Nati's textiles provide a rare opportunity to demonstrate in a historical context how weavers enhanced certain qualities of hue to make their appearance more conspicuous. Her daughters' and granddaughters' textiles are woven by people who have become habituated to the constant availability of electric light. Mama Nati's weavings were not conceived under such conditions. They demonstrate a delight in making visual distinctions based on contrasts. She had an ability to bring hues together to make them shimmer.

³⁴ Dransart, "Sounds and tastes of colours."

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Bibliography

Arnold, Denise Y. El textil y la documentación del tributo en los Andes: los significados del tejido en contextos tributarios. La Paz: ILCA, 2016.

Arnold, Denise Y. and Espejo, Elvira. "The intrusive *k'isa*: Bolivian struggles over colour patterns and their social implications," *World Art*, 2(2), 2012, 251-278.

Bacon, Francis. "Of unity in religion". In *Bacon's essays and colours of good and evil*. London: Macmillan and Co,182 [1597], pp 8-13.

Cereceda, Verónica. "Aproximaciones a una estética andina: de la belleza al *tinku*," in Javier Medina (ed.), *Tres reflexiones sobre el pensamiento andino*. La Paz, Hisbol, 1987, 133-231.

----- "Semiología de los textiles andinos: las talegas de Isluga", *Chungara: Revista de Antropología Chilena* 42(1), (2010 [1978]), 181-198.

Cobo, Bernabé. 1890 [1653]. *Historia del Nuevo Mundo*, D. Marcos Jiménez de la Espada (ed.). Seville: Sociedad de Bibliófilos Andaluces, Vol I.

Dransart, Penelope. "Coloured knowledges: vision and the dissemination of knowledge in Isluga, northern Chile". In Henry Stobart and Rosaleen Howard (eds), *Knowledge and learning in the Andes*, Liverpool, Liverpool University Press, 2002a, pp 56-78.

----- Earth, water, fleece and fabric. An ethnography and archaeology of Andean camelid herding. London: Routledge, 2002b.

----- "The sounds and tastes of colours: hue and saturation in Isluga textiles", *Nuevo Mundo Mundos Nuevos* [open access journal], Colloques, 07 juillet 2016. http://nuevomundo.revues.org/69188

Gage, John. *Colour and culture. Practice and meaning from antiquity to abstraction.* London: Thames and Hudson, 1993.

Harris, Olivia. "The earth and the state: the sources and meanings of money in Northern Potosí, Bolivia", in Jonathan Parry and Maurice Bloch (eds), *Money and the morality of exchange*. Cambridge: Cambridge University Press, 1989.

Hill, Jonathan D. "Myth, spirit naming, and the art of microtonal rising: childbirth rituals of the Arawakan Wakuénai", *Latin American Music Review / Revista de Música Latinoamericana* 6(1), 1985, 1-30.

Kiesling, R., Demaio, P., Cáceres, F., Faundez, L., Walter, H.E. & Saldivia, P. "*Tunilla soehrensii* (amended version of 2013 assessment)". *The IUCN Red List of Threatened Species* 2017: e.T151825A121569172. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151825A121569172.en. (accessed 28 January 2019).

Lucca, Manuel de. *Diccionario práctico aymara-castellano, castellano-aymara*, La Paz/Cochabamba, Editorial Los Amigos del Libro, 1987.

Martínez, Gabriel. "Para una etnografía del riego en Chiapa: medidas y calendario", *Chungara: Revista de Antropología Chilena* 18, 1987, 163-179.

Phipps, Elena. "Textile colors and colorants in the Andes", in Gerhard Wolf, Joseph Connors y Louis Alexander Waldman (eds), *Colors between two worlds. The Florentine Codex of Bernardino de Sahagún*. Florence: Kunsthistorisches Institut in Florenz, Max-Planck-Institut, Villa i Tatti and the Harvard University Center for Italian Renaissance Studies, 2011, 256-280.

Reid, Bill and Bringhurst, Robert. *The raven steals the light*. Vancouver: Douglas and McIntyre, 1984.

Roque, Georges. "Chevreul's colour theory and its consequences for artists", paper presented to the Colour Group (GB) meeting in June 2010, *Colour and textiles: From past to future* http://www.colour.org.uk/publications.php, 2011(accessed 29 January 2019).

Shibayama, Nobuko, Phipps, Elena, and Commoner, Lucy "Identifying natural dyes to understand a tapestry's origin, Metropolitan Museum of Art", https://www.metmuseum.org/about-the-met/conservation-and-scientific-research/projects/identifying-natural-dyes (accessed 28 January 2019).

Siracusano, Gabriela. *El poder de los colores*. *De lo material a lo simbólico en las prácticas culturales andinas, siglos XVI-XVIII*. Buenos Aires: Fondo de Cultura Económica, 2005.

Start, Laura E. *The MacDougall Collection of Textiles of Indian Textiles from Guatemala and Mexico*, T.K. Penniman and B.M. Blackwood (eds). Oxford: Pitt Rivers Museum, University of Oxford, Occasional Papers on Technology, 2, 1980 [1948].

Wierzbicka, Anna. "Why there are no 'colour universals' in language and thought", *Journal of the Royal Anthropological Institute* 14(2), 2008, 407-425.